

10 CFR 50.90

RS-02-165

October 4, 2002

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Subject: Response to Request for Additional Information
Excess Flow Check Valve Testing Surveillance and Relief Request RV-12

Reference: (1) Letter from K. R. Jury (Exelon Generation Company, LLC) to the NRC, "Request for Amendment to Technical Specifications Excess Flow Check Valve Testing Surveillance Requirement 3.6.1.3.8 and Relief Request RV-12," dated May 31, 2002

Exelon Generation Company (EGC), LLC, in Reference 1 proposed a Technical Specifications (TS) change that modified TS Surveillance Requirement (SR) 3.6.1.3.8 to reduce the number of excess flow check valves (EFCVs) required to be tested every 24 months. The proposed SR would require that a representative sample of reactor instrumentation line EFCVs actuate to the isolation position on an actual or simulated instrumentation line break signal every 24 months. All reactor instrumentation line EFCVs will be tested at least once every 10 years (nominal).

Additionally, the submittal in Reference 1 included Relief Request RV-12, Revision 0. This relief request proposed an alternative to the American Society of Mechanical Engineers (ASME) / American National Standards Institute (ANSI), Operation and Maintenance of Nuclear Power Plants, OMa-1996, Subsection Inservice Testing Code, Paragraph 4.1, "Valve Position Verification," and Table 3.6-1, "Inservice Test Requirements," that provides an acceptable level of quality and safety. The proposed

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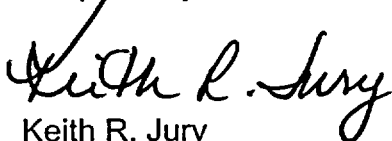
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change would require that a representative sample of EFCVs with remote position indication be observed locally at least once every two years (nominal) to verify that valve operation is accurately indicated. All EFCVs would be tested at least once every 10 years (nominal).

During recent discussions, the NRC requested additional information to complete their review of the EGC submittal. Attached is the LaSalle County Station response to the requested additional information.

Should you have any questions concerning this submittal, please contact Mr. T. W. Simpkin at (630) 657-2821.

Respectfully,

A handwritten signature in black ink, appearing to read "Keith R. Jury". The signature is fluid and cursive, with the first name "Keith" being more prominent.

Keith R. Jury
Director - Licensing
Mid-West Regional Operating Group

Attachment: Request for Additional Information on Excess Flow Check Valve Failures
for LaSalle County Station, Units 1 and 2

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – LaSalle County Station
Office of Nuclear Facility Safety – Illinois Department of Nuclear Safety

REQUEST FOR ADDITIONAL INFORMATION ON
EXCESS FLOW CHECK VALVE FAILURES
FOR LASALLE COUNTY STATION, UNITS 1 AND 2
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The current Technical Specifications (TS) for excess flow check valve (EFCV) testing requires that the entire population of 99 valves on each unit be tested each refueling outage. In 1999, LaSalle County Station initiated corrective actions to reduce the EFCV failure rate. These actions included the installation of lightweight springs in 19 Unit 1 and 13 Unit 2 EFCVs, test connection installation in 17 valves on each unit, and testing procedure changes.

Attachment 1 is a graph of the total EFCV surveillance test failures. Attachment 2 is a graph of the number of EFCV failures associated with the 8 Residual Heat Removal Shutdown Cooling (RHR-SDC) System EFCVs. Attachment 3 is a graph of the EFCV failures associated with the remaining 190 EFCVs (i.e., EFCVs not associated with RHR-SDC). Attachment 2 shows that the failure rate associated with the 8 RHR-SDC EFCVs has been a major contributor to the overall EFCV failure rate and that recent performance of the 8 RHR-SDC EFCVs has improved. Attachment 3 shows the EFCV failure rate with the removal of the failures associated with the 8 RHR-SDC EFCVs.

Although the above identified actions have reduced the EFCV failures in the last two refueling outages, the current TS surveillance test data collected during those two outages does not provide sufficient data to demonstrate continued improved performance of the EFCVs.

LaSalle County Station identified in its TS submittal specific corrective actions to be taken if additional EFCV failures are encountered. These actions are more comprehensive than the recommendations contained in Technical Specification Task Force Traveler (TSTF) 334 and include:

- The EFCVs will be grouped in accordance with the Inservice Testing Program's Condition Monitoring Program. Condition monitoring plans will be re-evaluated every two years, which includes review of test history, effectiveness of corrective actions, and consideration of appropriateness of current test frequencies. The test frequency must be periodically justified and approved by an expert panel as described in the Condition Monitoring Program. This approach will require that a continuing review of the failures be performed to assess performance trends. The initial plan is to group the EFCVs into three to five groups. Each refueling outage approximately 20% of each group will be tested. This approach will ensure that a representative sample of EFCVs are tested each refueling outage.
- If any one EFCV in a group fails to check flow as the result of either test methodology or valve failure, another representative sample (i.e., approximately 20%) of EFCVs in that group will be tested prior to restart. If one of the additional EFCV fails to check flow, all EFCVs within that group will also be tested prior to

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restart. Any valve that fails to check flow will be tested again in the next refueling outage, in addition to the normally required test population sample.

- The 8 RHR-SDC EFCVs discussed above will be tested in the next refueling outage on each unit, even though recent testing performance has significantly improved.
- The Corrective Action Program will be used to document failures, track evaluations, track sample expansion requirements, and establish corrective actions as appropriate.

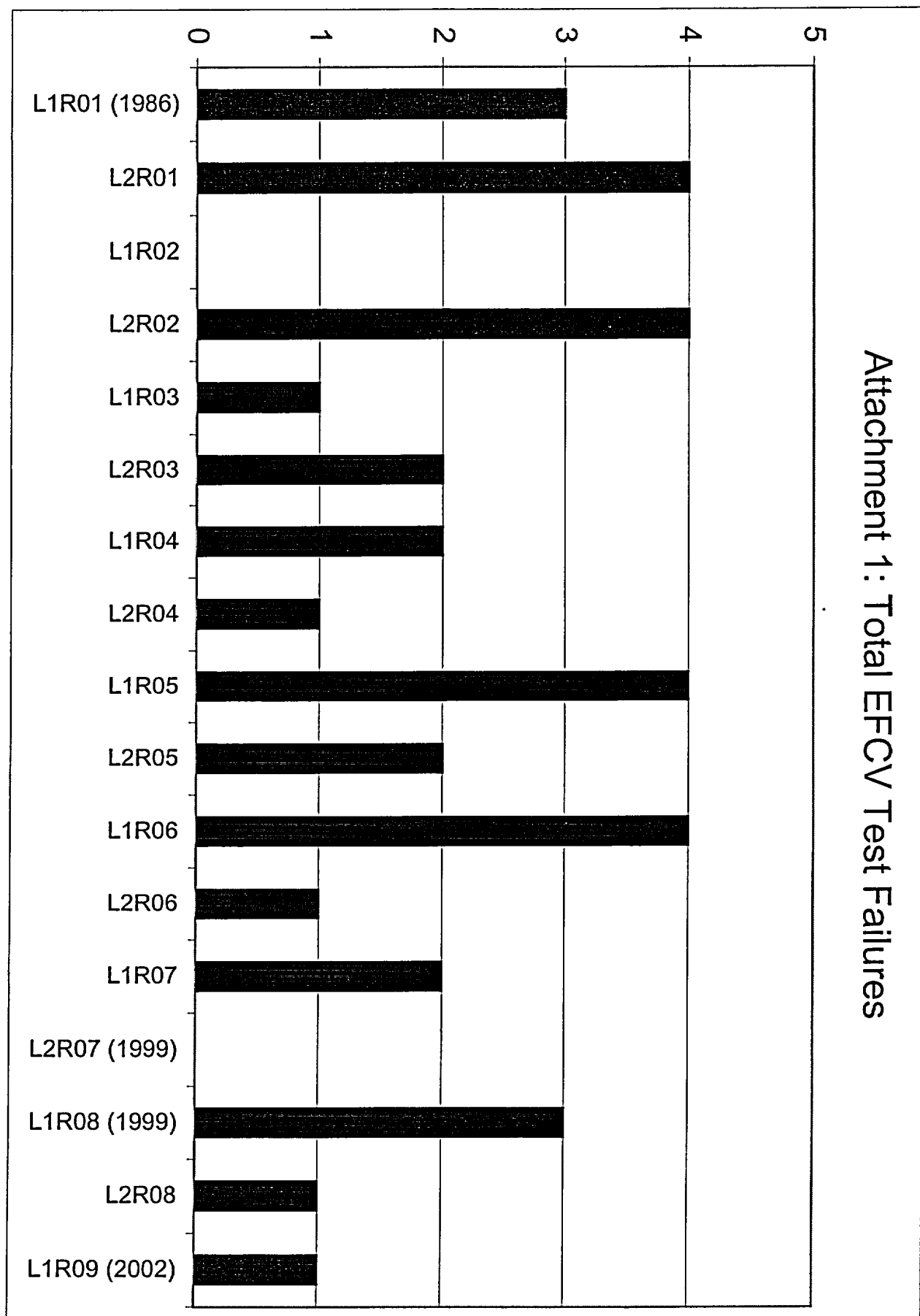
In addition to the above actions, LaSalle County Station will commit to change the above sample expansion criteria to:

- If any one EFCV in a group fails to check flow as the result of either test methodology or valve failure, all EFCVs within that group will be tested prior to restart. Any valve that fails to check flow will be tested again in the next refueling outage, in addition to the normally required test population sample.

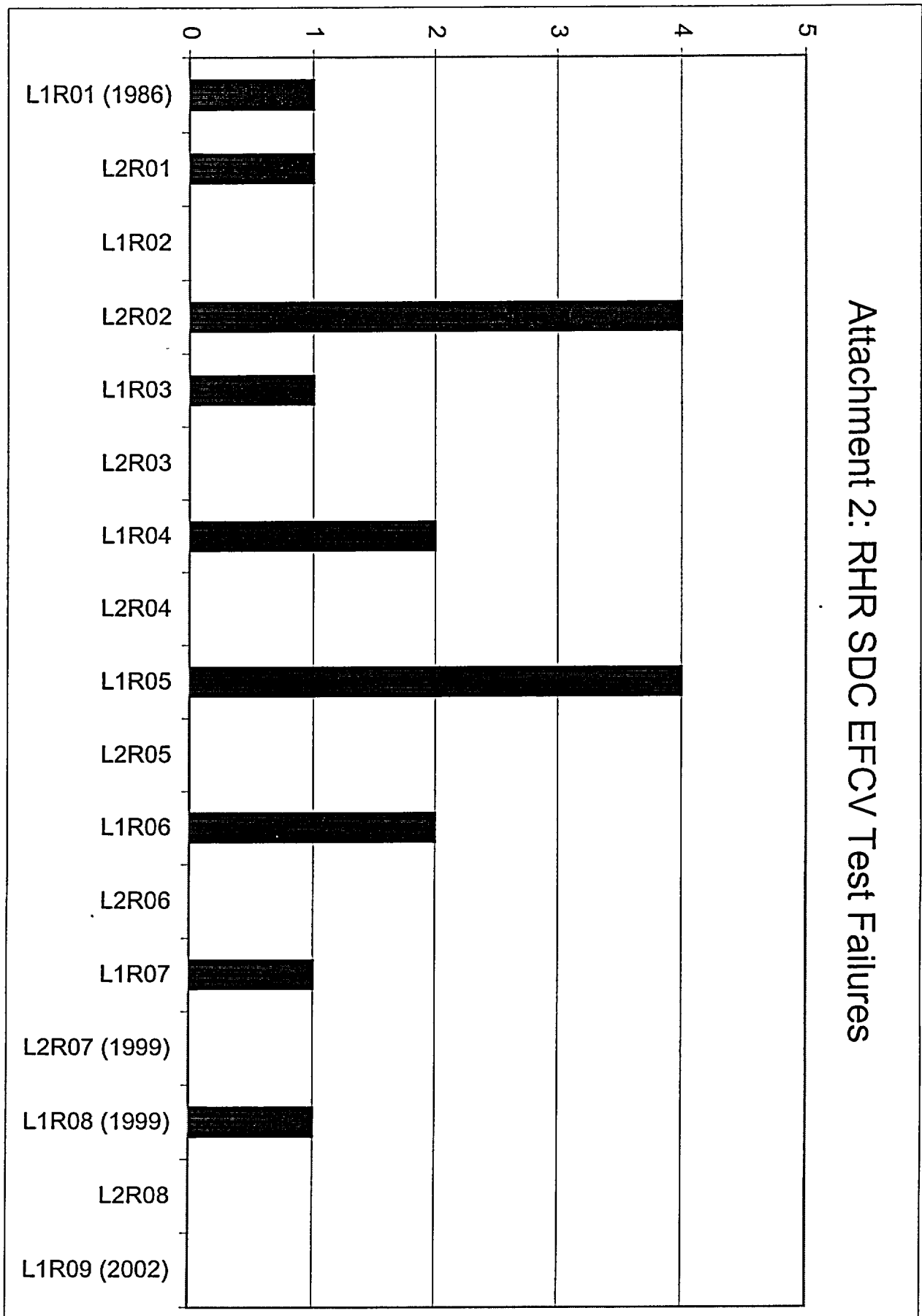
Sample expansion will be performed using this new criterion until the failure rate of the EFCVs is such that no EFCV failures have occurred in five consecutive outages. After that time, no further sample expansion will be required.

The increased use of the Corrective Action and Condition Monitoring Programs will ensure that a heightened level of attention will be given to valve failures and that corrective actions are established to further improve test performance.

Attachment 1: Total EFCV Test Failures



Attachment 2: RHR SDC EFCV Test Failures



Attachment 3: EFCV Test Failures Excluding RHR SDC

